

Lewis and Clark And The Corps of Discovery



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Presentation II

Wed, Jan 17, 2018



THERE ARE NO SERVICES. NO WATER. YOU WILL BE ON YOUR OWN.

I had food, water and a sat phone.



Camping in the Windy Desert, 40 MPH!



Deer Creek Canyon, Salmon River, Idaho
(This Ain't Iowa!)



Circa 1993 at Weitas Meadows on the Lolo Trail

Ordway Camp on the Snake River at Cougar Rapids Bar



Ordway Camp on the Snake River At Cougar Rapids Bar, Idaho

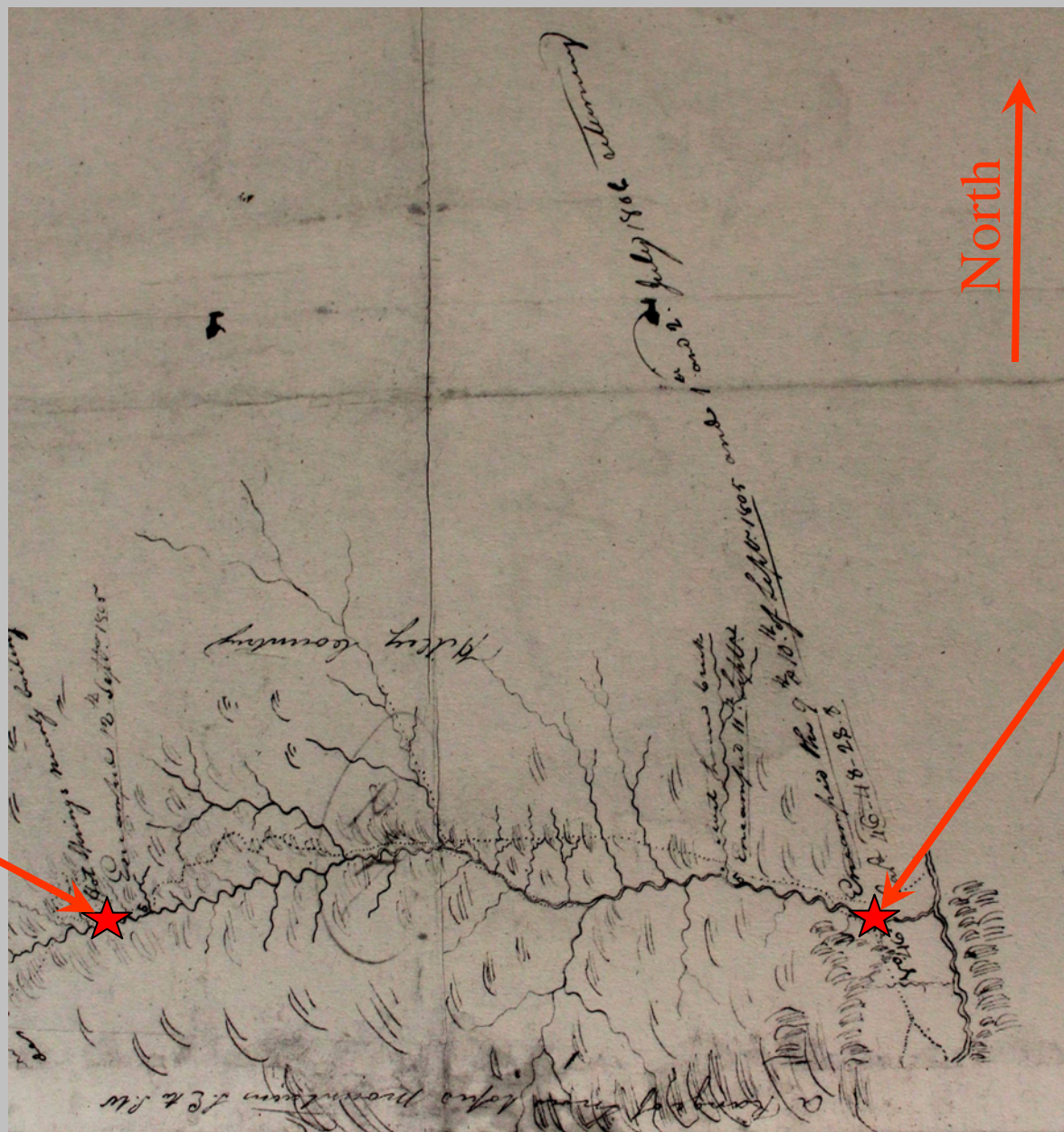
- 1 Dr. Steve F. Russell, retired Iowa State University Faculty, trail researcher, Historic Trails Research, Ames, Iowa, discoverer of the May 30, 1806 campsite of Sgt. John Ordway on the Snake River.**
- 2 Alan Pinkham, Historian, Nez Perce Tribal Elder, Idaho. Writer of books about oral traditions of the Nez Perce.**
- 3 John Barker, owner of Barker River Tours on the Snake River. John hiked the Salmon River Ordway route with Steve.**
- 4 Dr. Steve Evans, faculty member at Lewis-Clark State College, Lewiston, Idaho. Steve is a co-author with Alan of the book: “Lewis and Clark Among the Nez Perce: Strangers in the Land of the Nimiipuu”.**
- 5 John Fisher, Lewis and Clark Historian and creator of the traveling exhibit of the supplies and gear used by the Corps of Discovery. Exhibit now at the Lewis and Clark Interpretive Center in Mandan, ND.**
- 6 Dr. Ken Reid, Archeologist, Idaho State Historian and head of the Idaho State Historic Preservation Office.**



John A. K. Barker, River Rat

Traveling the Lewis and Clark Trail with The Corps of Discovery

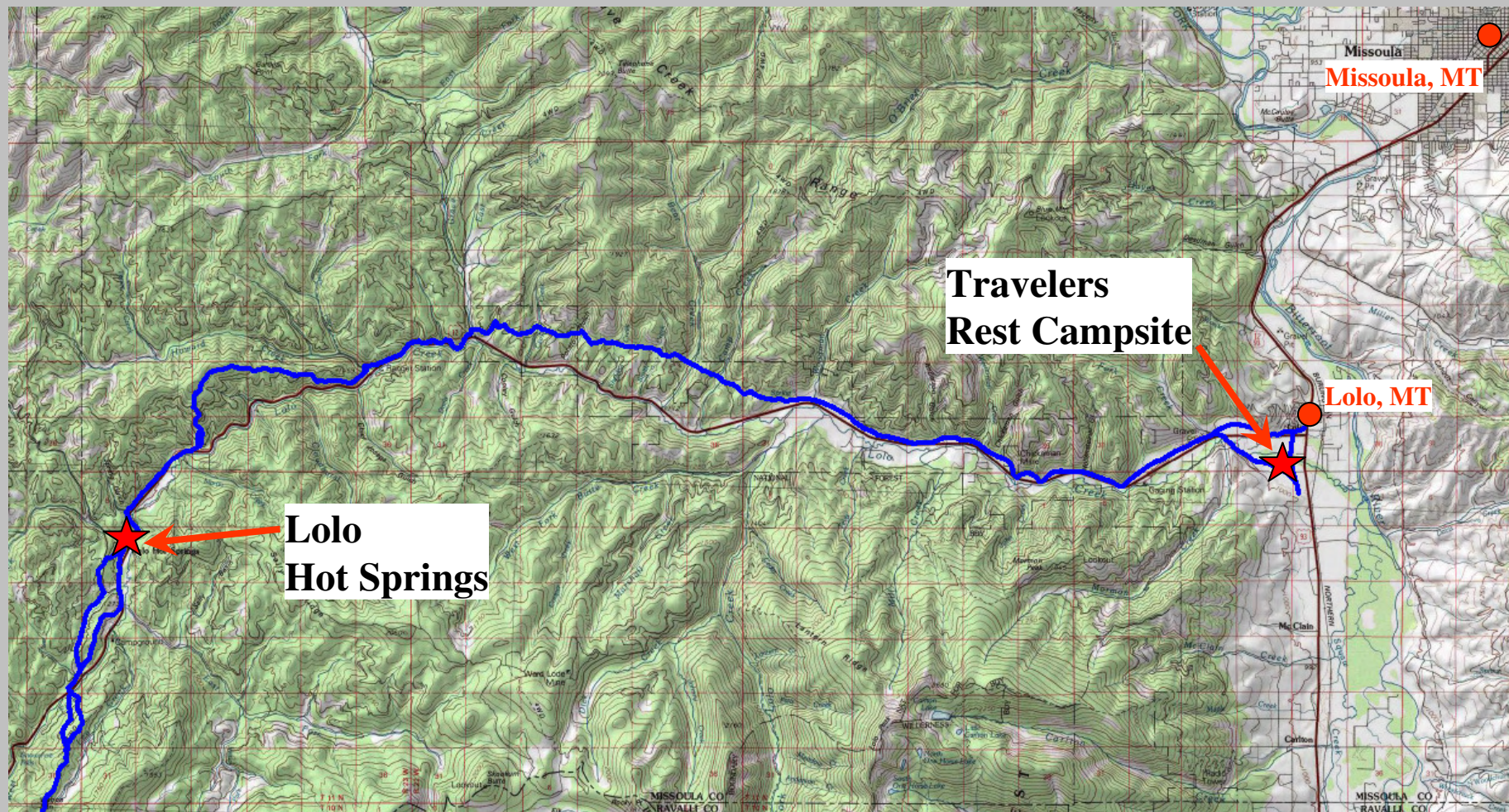
**Lolo
Hot Springs**



**Travelers
Rest Campsite**

Montana

Travelers Rest Journal Map



Travelers Rest Topo Map

Montana

TRAVELLERS REST

BITTER ROOT CHAPTER DAUGHTERS OF THE AMERICAN REVOLUTION
MISSOULA MONTANA DEDICATE THIS MARKER TO CAPTAINS LEWIS AND
CLARK, SAGAJAWEA, THEIR INSPIRATION AND GUIDE AND THE BRAVE MEN
OF THE TRANS-MISSISSIPPI EXPEDITION WHO ENGAMPED ON LO LO
CREEK SEPTEMBER 10 - 1805



ORDWAY	WILLARD	COLTER	BRATTON
GASS	M'NEAL	HALL	THOMPSON
PRYOR	WISER	COLLINS	WHITEHOUSE
WINDSOR	LEPAGE	WERNER	FIELDS BROTHERS
GIBSON	HOWARD	FRAZIER	DROUILLARD
SHIELDS	POTTS	SHANNON	GOODRICH
	LABICHE	GRUZATTE	

CHABONEAU HUSBAND OF SAGAJAWEA, BAPTISTE
THEIR BABY AND YORK THE SLAVE

DEDICATED

OCTOBER 9-1925

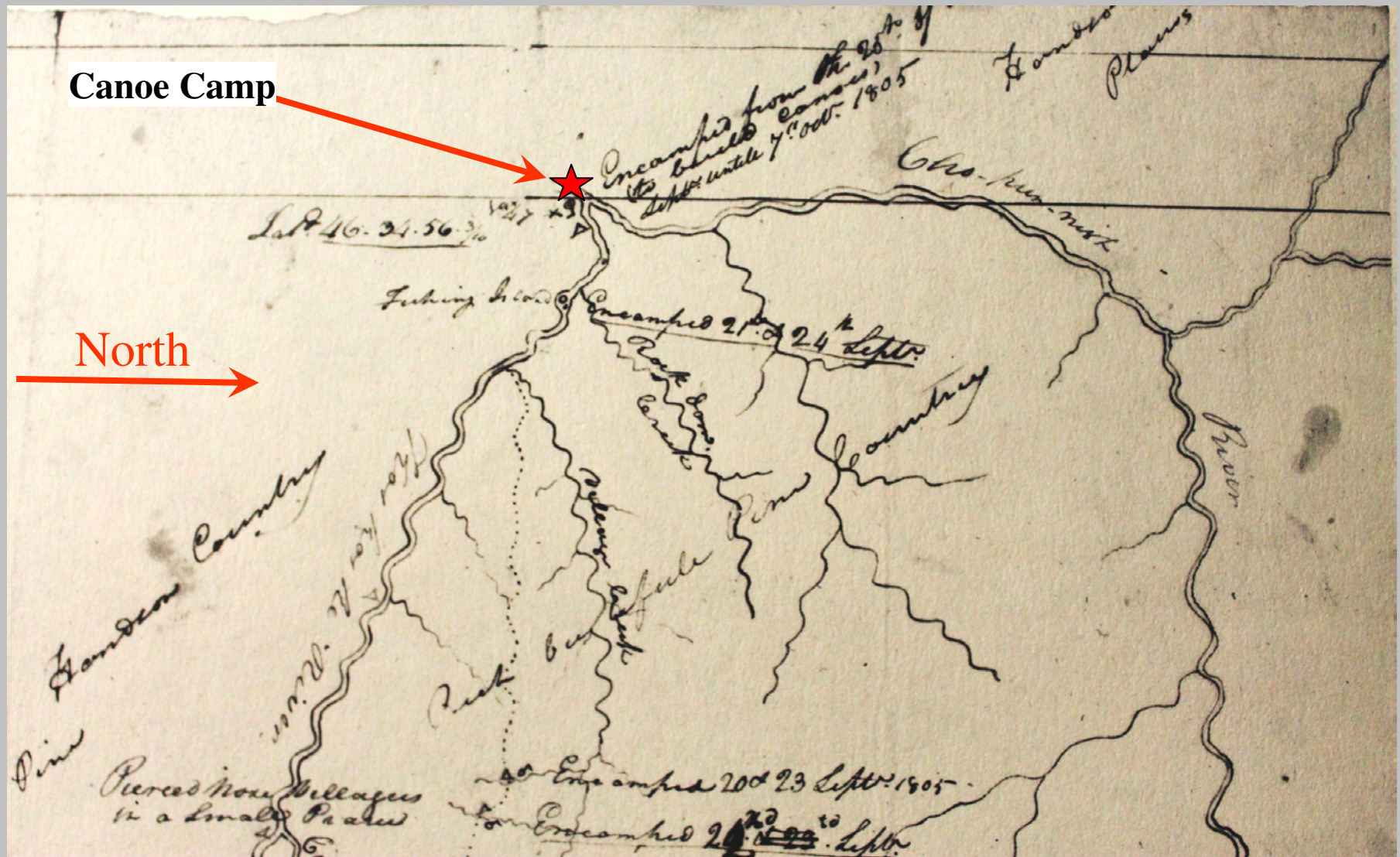
A C M CO



Travelers Rest Campsite, Aerial Photo



Canoe Camp Sign, 1965



Idaho

Canoe Camp Journal Map



Idaho

Canoe Camp Topo Map



Canoe Camp Aerial Photo

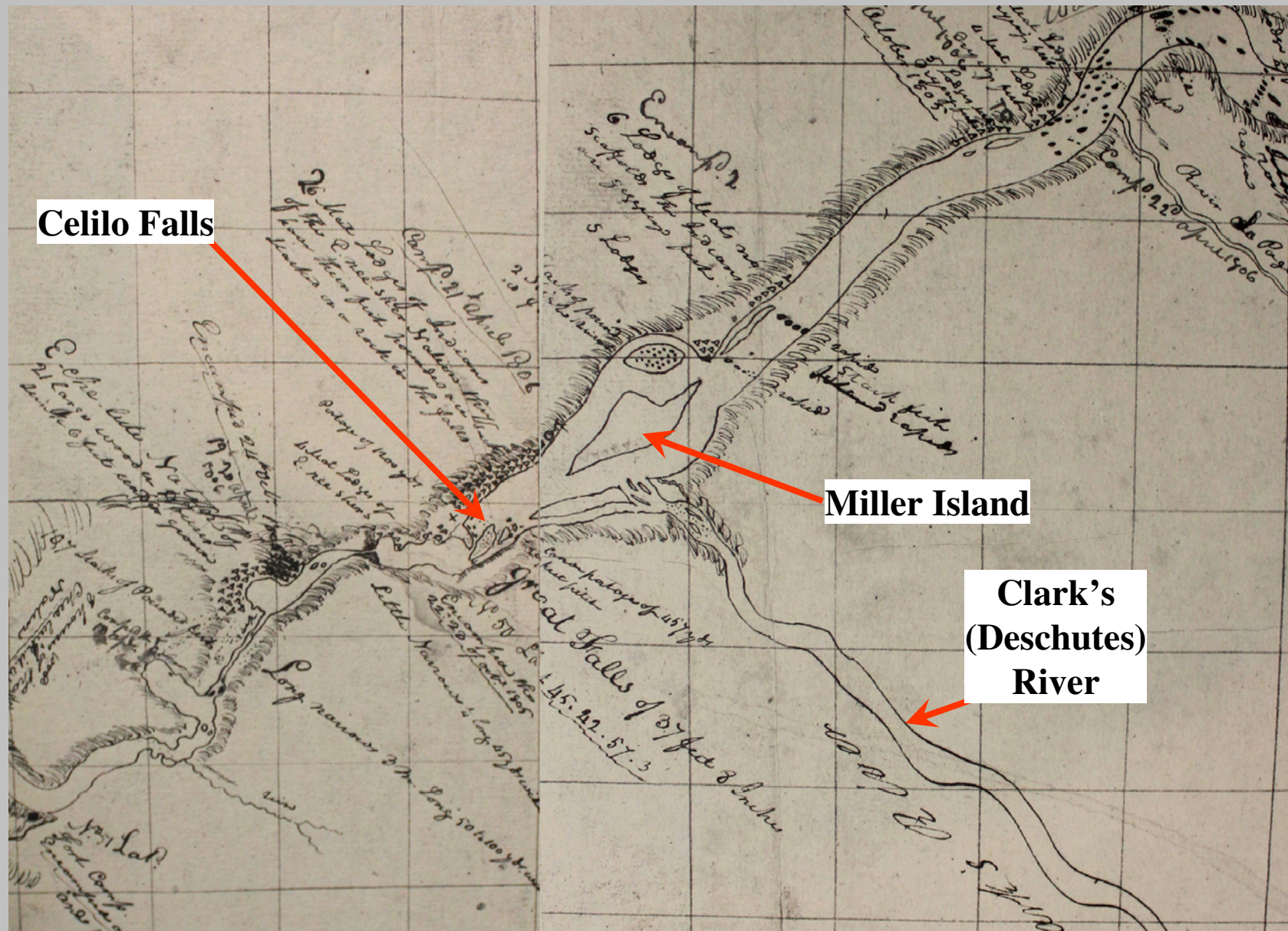


Canoe Camp Telephoto

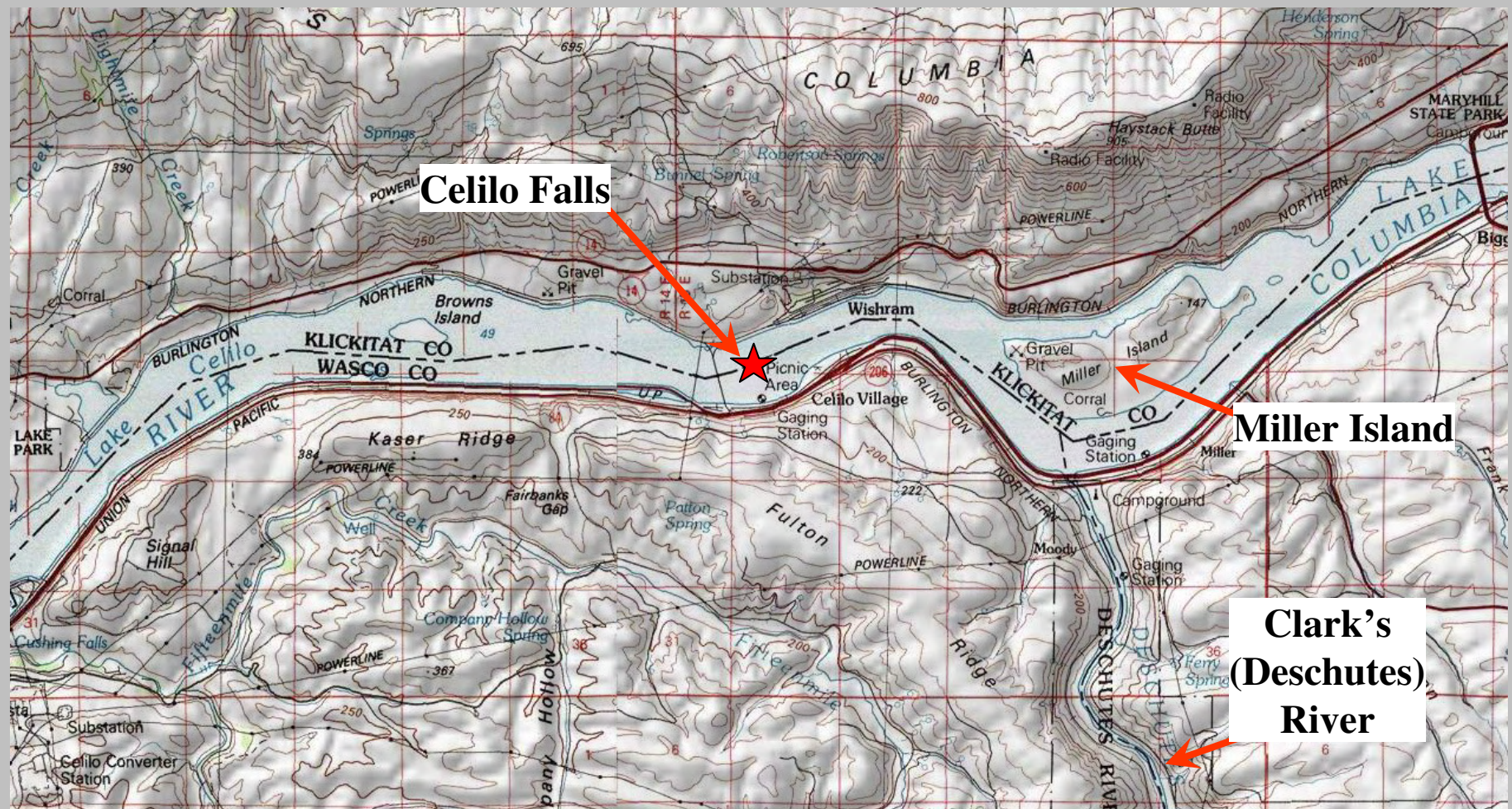
Surprises and Adventures

The ‘official’ version of the Lewis and Clark National Historic Trail, by the National Park Service, does not include numerous short land routes and explorations. The most glaring omission is the route of Sgt. Ordway from the Clearwater River, west to the Salmon River. He traveled over 130 miles roundtrip. These other routes of the Lewis and Clark Trail will not be included unless Congress changes the Historic Trail Act.

Questions?

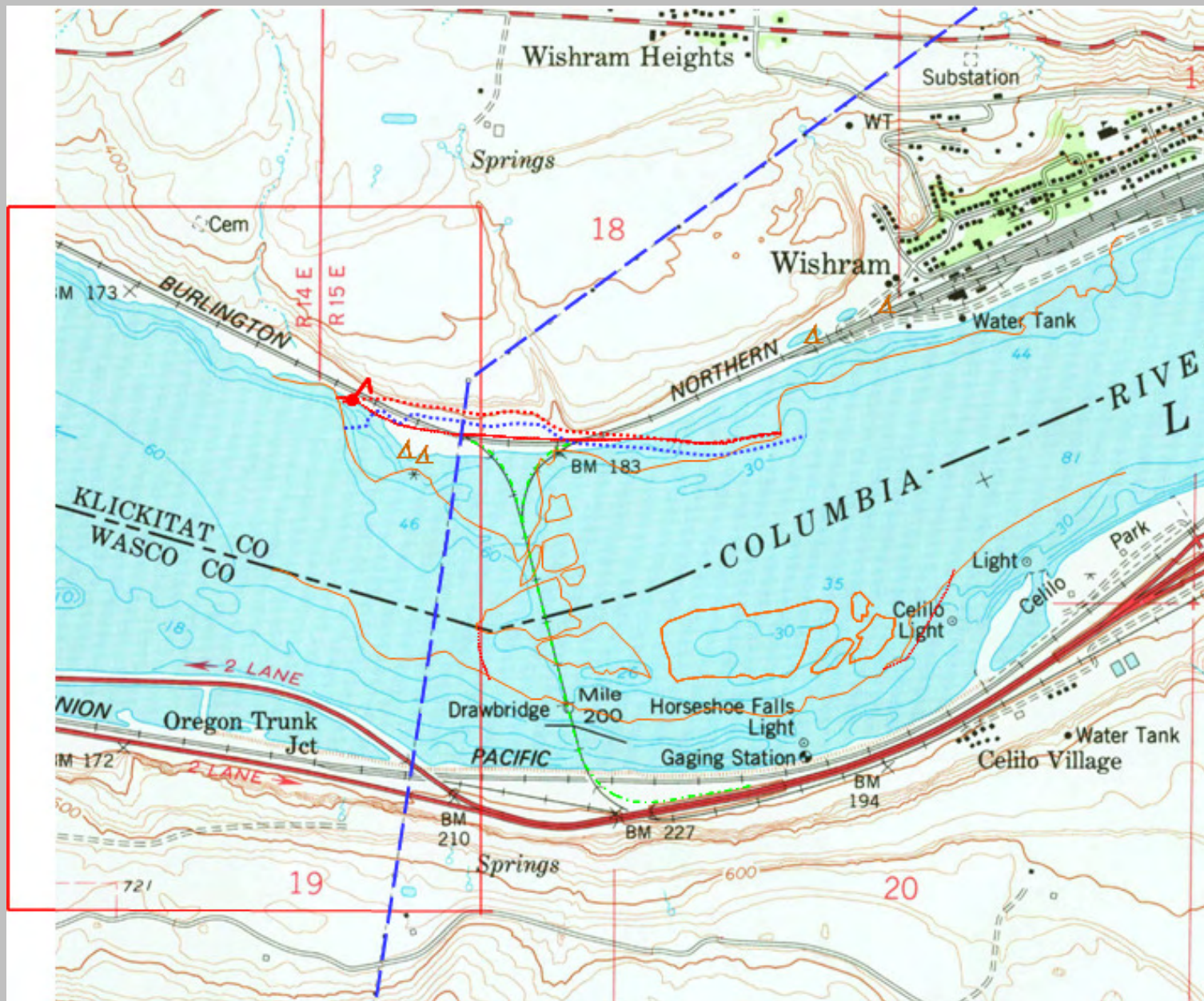


Oregon-Washington Celilo Falls Journal Map #1



Oregon-Washington

Celilo Falls Topo Map



Oregon-Washington Celilo Falls Topo Map



Celilo Falls Journal Map #2



Celilo Falls L&C Map #3



Celilo Falls, 1935



Celilo Falls Salmon Fishing, 1950s



Celilo Falls (Salmon Fishing??), 2014





Fort Astoria 1811







Mouth of the Columbia River

Surprises and Adventures

A Dead Whale

January 7, 1806 (Gass): Another fine day. About noon Captain Clarke with 14 men came to the salt-makers camp, in their way to the place where the large fish had been driven on shore, some distance beyond this camp. The Indians about our fort had procured a considerable quantity of the meat, which we found very good. The 8th was a fine day and I remained at camp. The 9th was also fair and pleasant; and about noon Captain Clarke and his party returned here; the distance being about 17 miles. They found the skeleton of the whale which measured 105 feet in length and the head 12.

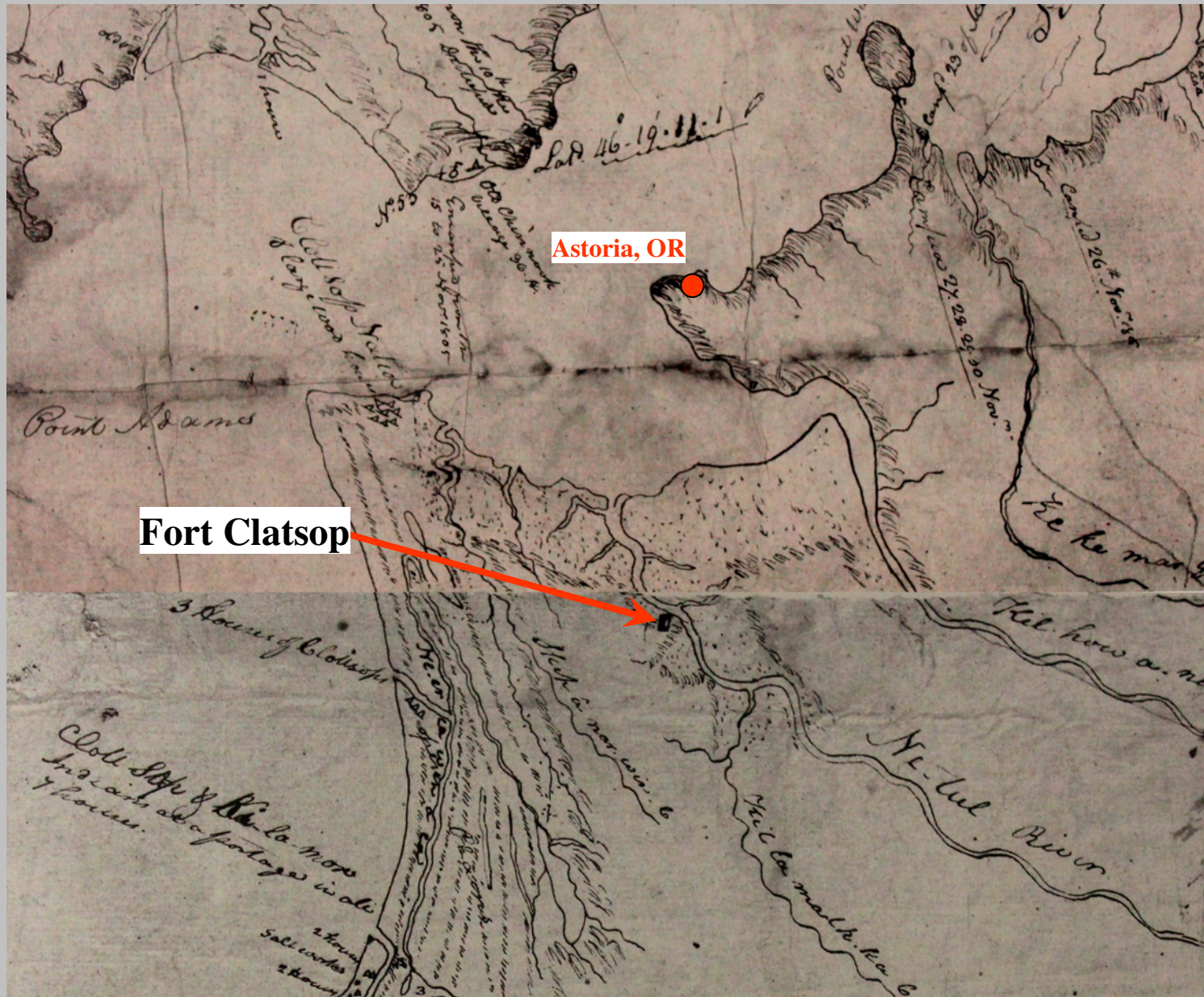


Fort Clatsop, Oregon



Fort Clatsop, Oregon

1965



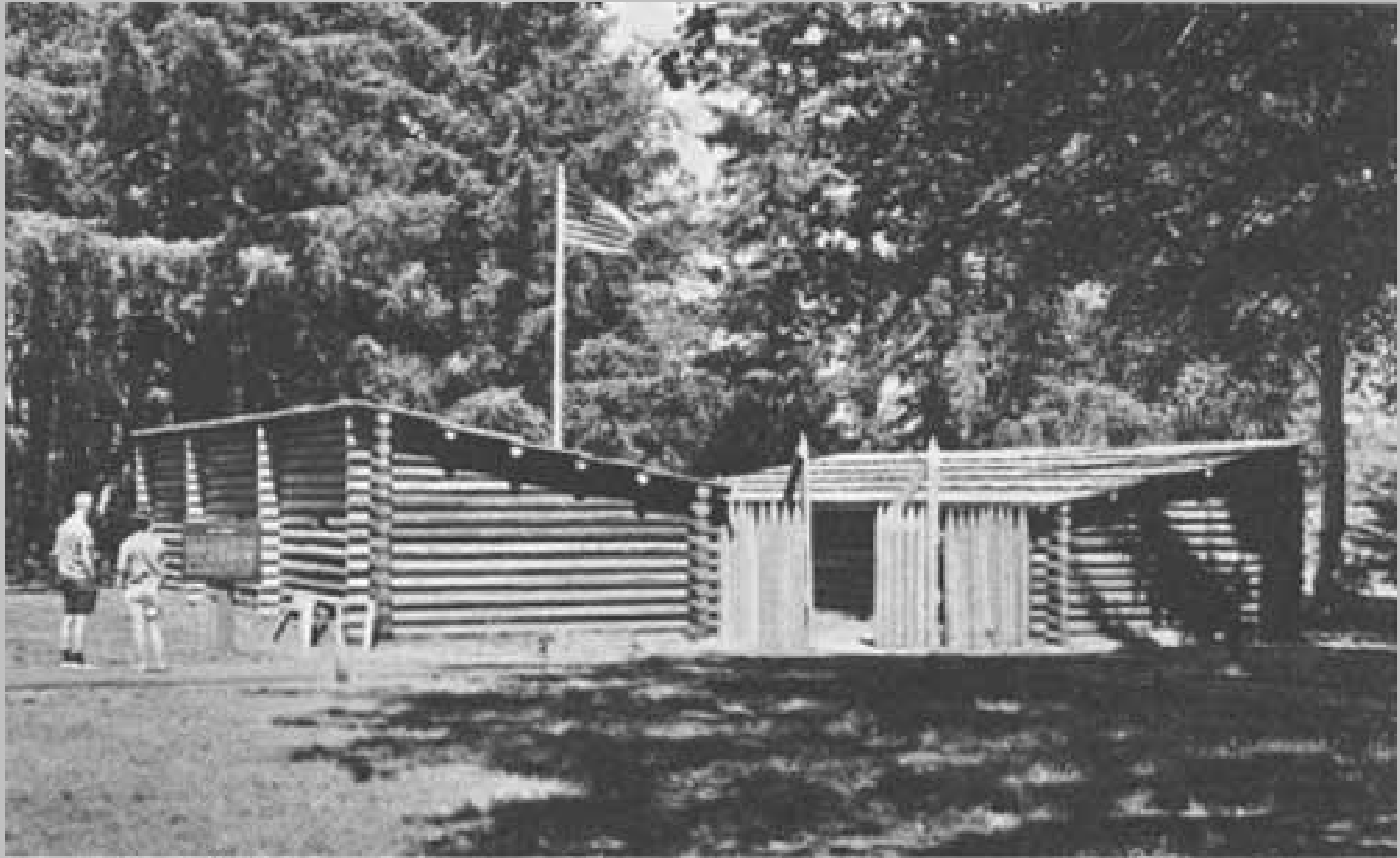
Oregon

Fort Clatsop Journal Map



Fort Clatsop Topo Map

Oregon



Fort Clatsop, Oregon 1965



Fort Clatsop, Oregon, 2014



Canoe, Fort Clatsop, Oregon, 2014



Fort Clatsop, Oregon, 2014

Surprises and Adventures

Rush's Thunderbolts: Doctor Benjamin Rush was a doctor that was widely known in the young nation in 1803. One of the popular medical treatments in those days was a purgative (strong laxative). Dr. Rush provided 600 of his famous homemade laxative pills for the expedition. The concoction was reported to be a mixture of calomel¹, chlorine, jalap² and mercury³. They became known as “Rush's Thunderbolts” for their effective, quick, and dramatic effects.

¹ Mercury chloride is the chemical compound with the formula Hg_2Cl_2 . Also known as the mineral calomel or mercurous chloride,

² **Jalap:** a purgative drug obtained chiefly from the tuberous roots of a Mexican climbing plant

³ After elemental **mercury** is absorbed, it is oxidized in the tissues to organic forms. Blood concentrations decline initially with a rapid **half-life** of approximately 1-3 days followed by a slower **half-life** of approximately 1-3 weeks (Barregard et al., 1992; Sandborgh-Englund et al., 1998).

Research for the 'True' Trail Location

Water Routes versus Land Routes

- **Water Routes:** Most of their travel was on, or beside rivers. This gives us a very good idea where there traveled. However, river courses change over time. In western Iowa, the Bertrand River Boat is about $\frac{3}{4}$ mile from the present course of the Missouri River.
- **Land Routes:** Locating their land routes is much more difficult but we know they used major Indian trails and we have numerous geographic clues from their journals and maps. Several researchers have worked on locating their land routes.

The Corps of Discovery followed Indian Trails, they did not create their own trails, although they sometimes “bushwhacked.”



Water Route Map



Land Route Map
(color added)

Expedition Members



A Miracle of Leadership and Cooperation

Lewis and Clark scholars such as Gary Moulton, Jim Ronda, and Joe Mussulman have commented on the remarkable leadership and success of the Expedition. They had no experience with exploring but nearly all of them had experience as woodsmen* and hunters. They knew how to survive a hard life and were as ‘tough as nails.’ And remember – they were working directly for President Jefferson, Commander in Chief! They also had promises of land grants, both are high motivators.

***including York and Sacajawea.**

Expedition Members

- Meriwether Lewis, Captain, Co-Leader of the Expedition,
- William Clark, Lieutenant, Co-Leader of the Expedition
- Charles Floyd, Army Sergeant
- Patrick Gass, Army Sergeant, journal keeper
- John Ordway, Army Sergeant, journal keeper
- Nathaniel Hale Pryor, Army Sergeant
- Jean Baptist Charbonneau (Pompy), child of Sacajawea
- Toussaint Charbonneau, interpreter and husband to Sacajawea
- William E. Bratton, Army Private, hunter
- John Collins, Army Private, hunter
- John Colter, Army Private, hunter
- Pierre Cruzatte, Army Private, interpreter, boatman
- George Drouillard (Drewyer), scout, hunter, woodsman

Expedition Members

- Joseph Fields, Army Private, hunter, woodsman
- Reuben Fields, Army Private, hunter, woodsman
- Robert Frazier, Army Private, hunter, woodsman
- George Gibson, Army Private, interpreter
- Silas Goodrich, Army Private
- Thomas Proctor Howard, Army Private, hunter, woodsman
- Francois (William) Labiche, Army Private
- Jean Baptiste Lepage, Army Private
- Hugh McNeal, Army Private, hunter
- John Potts, Army Private
- Sacajawea, “Bird Woman,” interpreter, root gatherer, attaché, wife to Charbonneau

Expedition Members

- Seaman, Lewis' Newfoundland Dog
- George Shannon, Army Private
- John Shields, Army Private, blacksmith
- John B. Thompson, Army Private
- Peter M. Weiser, Army Private
- William Werner, Army Private
- Joseph Whitehouse, Army Private, journal keeper
- Alexander Hamilton Willard, Army Private, blacksmith
- Richard Windsor, Army Private
- York, Clark's black slave, a full member of the expedition

Surprises and Adventures

Seaman

Captain Lewis had a Newfoundland dog named Seaman, who was with the expedition the entire trip. He provided some amusement and companionship.

In 1806, as the expedition was beginning the return journey, Seaman was stolen by west coast Indians (probably for breeding purposes). Lewis threatened to have the thieves killed – he got his dog back!

It is ironic that Corps of Discovery ate many dogs on their journey but Seaman was not one of them.

Notable Expedition Members

- **Meriwether Lewis**, Captain, Co-Leader of the Expedition, Private Secretary to President Jefferson, Naturalist.
- **William Clark**, Lieutenant, Co-Leader of the Expedition, Map Maker
- **John Colter**, Army Private, hunter. Colter received additional fame in the famous story of “Colter’s Run,” and his exploits in Yellowstone Park, nicknamed ‘Colter’s Hell.’
- **Patrick Gass**, Army Sergeant, journal keeper, carpenter. Gass was the first expedition member to publish his journal. He far outlived the other members and died at age 98. It has been reported that, At the age of sixty he married Maria Hamilton, aged 20* (he could not be elected to today’s US Senate. She bore 7 children (6 surviving to adulthood) over the remaining 15 years of her life.

*** Talk about granddaddy issues**

Notable Expedition Members (Cont.)

- **John Ordway**, Army Sergeant, journal keeper. Ordway is well known for his extended trip from Long Camp (Kamiah, Idaho) to the Salmon River (Cougar Rapids Bar), to purchase salmon for the expedition's long journey eastward into Montana.
- **Jean Baptist Charbonneau** (Pompy), child of Sacajawea and Charbonneau. He was a scholar sponsored by William Clark and a western traveler. I visited his Oregon grave site in 2016.
- **Sacajawea**, “Bird Woman,” interpreter, root gatherer, attaché, wife to Charbonneau (more about Sacajawea later)
- **Joseph Whitehouse**, Army Private, journal keeper
- **York**, Clark's black slave, a full member of the expedition

Notable Expedition Members (Cont.)

- “**Toby**,”* an elderly Lemhi Shoshoni guide who was with the Expedition from Salmon, Idaho to the Clearwater River (land of the Nez Perces), Idaho. Toby’s son also accompanied the expedition.

***It is highly annoying that this man has been referred to as “Old Toby” in popular Lewis and Clark literature. The Journals never call him by that name.**



Surprises and Adventures

August 17, 1805 Sacajawea recognizes Cameahwait, leader of the Lemhi Shoshone as her brother. This guarantees cooperation between the Shoshone and the expedition, and results in essential horse trading.

Contrary to popular opinion and as reported in publications, she did not have a happy reunion with her brother. His response to seeing her was rather dispassionate.

Surprises and Adventures

Chain of Translation with the Lemhi Shoshoni at the Lemhi Valley, Idaho

- **English to French:** Lewis spoke English to Private Francois Labiche
- **French to French:** Private Labiche spoke French to Toussaint Charbonneau
- **French to Hidatsa:** Charbonneau spoke Hidatsa to Sacajawea
- **Hidatsa to Shoshoni:** Sacajawea spoke Shoshoni to her brother, Chief Cameahwait of the Lemhi Shoshoni

English > French > Hidatsa > Shoshoni

Surprises and Adventures

Chain of Translation with the Flatheads (Salish) at the Bitterroot River, Montana

- **English to French:** Lewis spoke English to Private Francois Labiche
- **French to French:** Private Labiche would speak French to Toussaint Charbonneau
- **French to Hidatsa:** Charbonneau, would speak Hidatsa to Sacajawea
- **Hidatsa to Shoshoni:** Sacajawea would speak Shoshoni to a Shoshoni boy who was a captive of the Flatheads
- **Shoshoni to Salish:** The Shoshoni boy would speak Salish to the Flatheads.

English > French > Hidatsa > Shoshoni > Salish

The 'Bad Word' That Isn't

SQUAW

SQUAW

SQUAW

SQUAW

This word has been condemned by several social activists as being derogatory to women but there is no research evidence of this.

Gary Moulton, Joe Mussulman, Steve F. Russell, and others have looked at the issue and believe it is simply the Algonquin word for a married woman.

Sacajawea

“Bird Woman”

Sacagawea and Sakakawea

‘Gift’

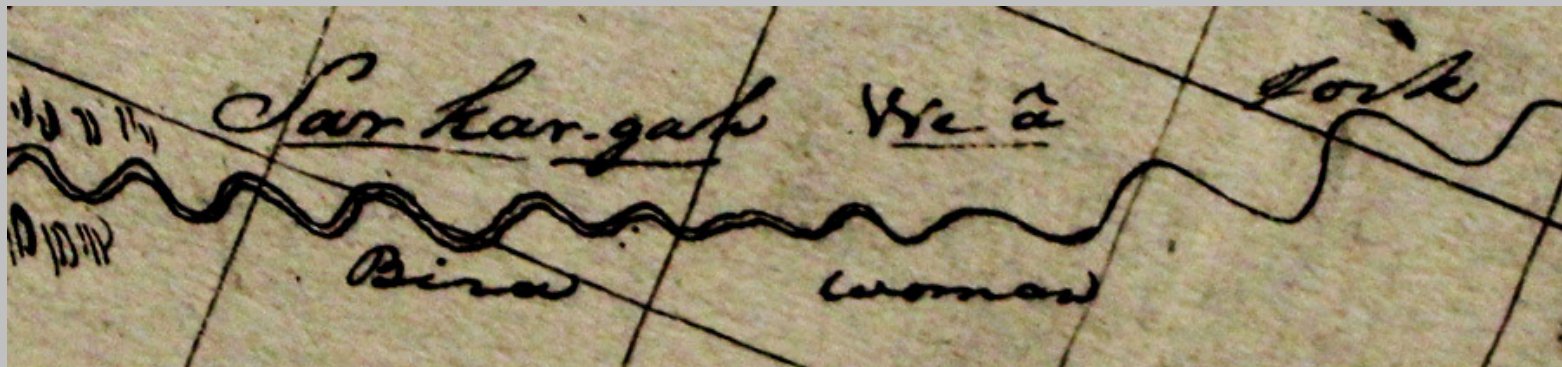
What She Was:

- Teenage wife of Toussaint Charbonneau
- Teenage mother of Jean-Baptiste Charbonneau, “Pompy”
- Sister to Cameahwait, a Lemhi Shoshoni leader
- Translator from Hidatsa to Shoshoni and Hidatsa – she did not speak English
- Herbal Specialist
- Expedition Envoy: signifying that the expedition was peaceful (but she was not a peacemaker)
- Identifies Landmarks: Three Forks, Beaver Rock, and Bozeman Pass

Conceptions and Misconceptions

Sacajawea

- Sacajawea is the spelling and pronunciation preferred by her native tribe, the Lemhi Shoshoni. Other spellings are Sacagawea and Sakakawea.



Sar kar gah	We â
Bird	Woman
Sa ca ja	we a

Her name
On one of
Clark's maps

Conceptions and Misconceptions

Sacajawea

- **Nobody knows how old she was and silly statements about her definite age are based on no facts. Most researchers do think that she was a teenager at the time of the expedition.**
- **We definitely know that she was not a guide for the expedition. Her husband, Toussaint Charbonneau, was a guide.**
- **She was not a Navigator**
- **She was not a Counselor**
- **She was not a Peacemaker**

Conceptions and Misconceptions Sacajawea

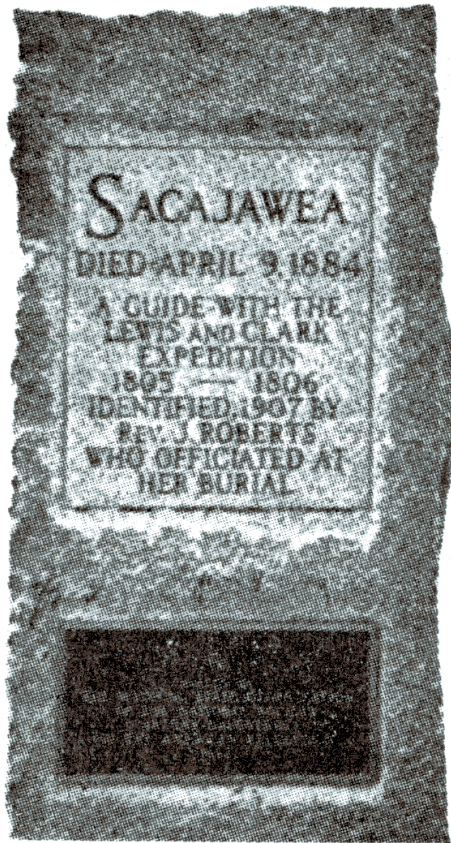
Posthumous Resume Puffing?:

- Guide: No, except for pointing out Three Forks, Beaverhead Rock, and Bozeman Pass
- Navigator: No
- Diplomat: In a passive way, expedition envoy, signifying that the expedition was peaceful
- Counselor: No

Conceptions and Misconceptions

Fake Sacajawea

WAS SHE THE SACAJAWEA
OF LEWIS AND CLARK?



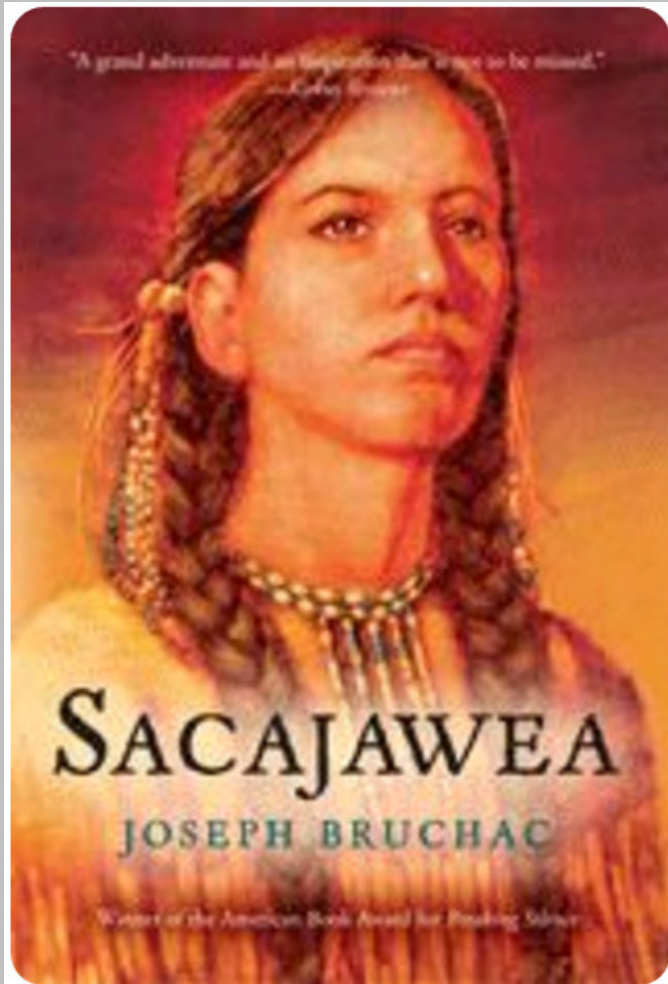
Sacajawea's grave in the Wind River
Reservation, near Lander, Wyo.

The Wind River Indian Reservation is located in western Wyoming, along the Wind River and is the home of the Eastern Shoshone and Northern Arapaho tribes. Fake Sacajawea: A woman claiming to be Sacajawea lived and died there. There is no credible evidence of this.

I have traveled through the area several times and have visited the cemeteries and the interpretive sites and have read the books.

Conceptions and Misconceptions

Sacajawea (cont.)



RoseAnne Abrahamson
“Descendent”

2008, The fascinating story of the young woman who made the historic Lewis and Clark expedition possible. Grades 7-12.

Captured by her enemies, married to a foreigner, and a mother at age sixteen, Sacajawea lived a life of turmoil and change. Then, in 1804, the mysterious young Shoshone woman met Meriwether Lewis and William Clark. Acting as interpreter, peacemaker, and guide, Sacajawea bravely embarked on an epic journey that altered history forever. Hear her extraordinary story, in the voices of Sacajawea and William Clark in alternating chapters, with selections from Clark’s original diaries.

**POPPYCOCK!, Rubbish!, Claptrap!,
Balderdash!, Blather!**

Conceptions and Misconceptions

Sacajawea (cont.)

**POPPYCOCK!, Rubbish!,
Claptrap!, Balderdash!, Blather!**

Interpretive Center will tell Sacajawea's story

By Doug Coltrin

For years [RoseAnne Abrahamson](#) has worked on building an interpretive center to tell the story of Sacajawea, the native Shoshone woman who served as a guide for the Lewis and Clark expedition from 1803-1805.

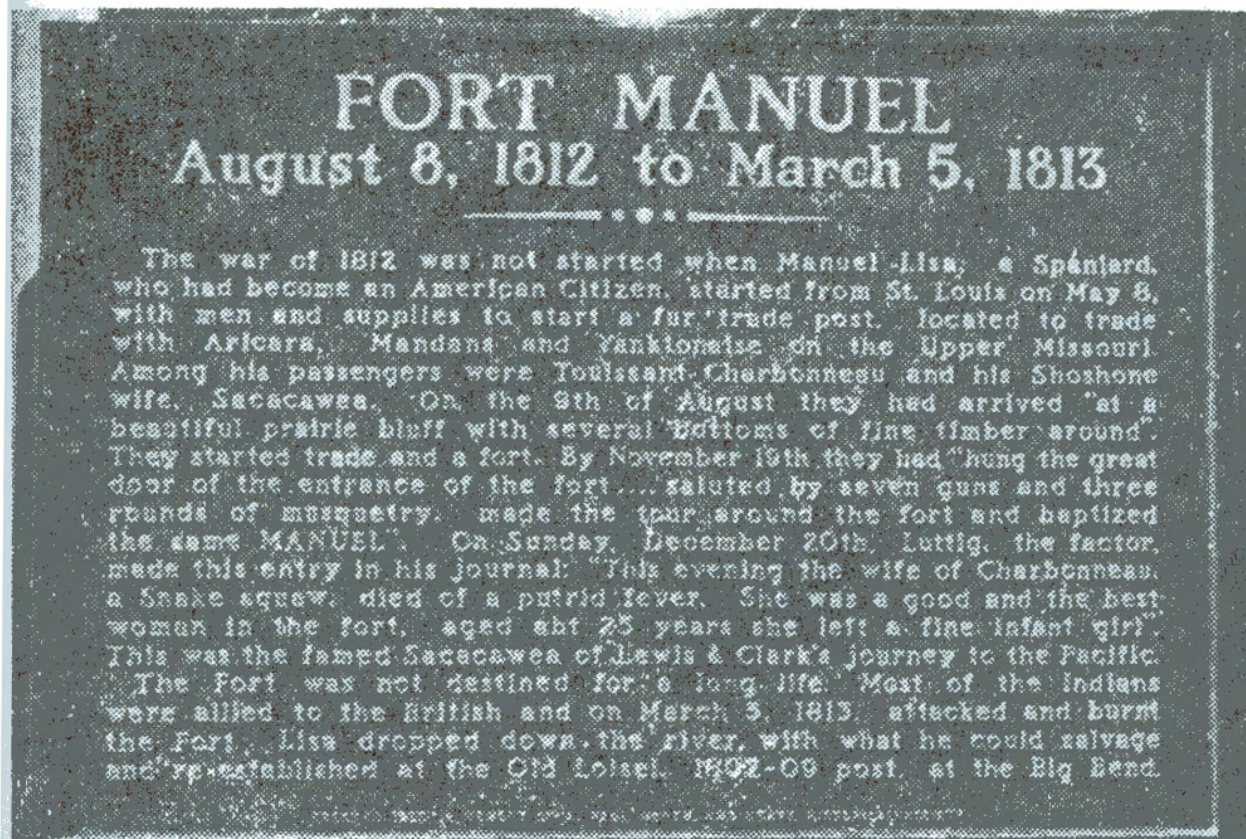
Last October in Salmon, Idaho, ground was broken for the Sacajawea Interpretive Center. Abrahamson says that this is one of the major events for the commemoration of the 200th anniversary of the Lewis and Clark expedition.

The center, which is expected to be completed in 2002, will be designed to tell the story of Sacajawea from her perspective and the perspective of the Lemhi tribe.

Sacajawea guided the adventurers from Great Falls to the Lemhi Valley in Idaho serving as a navigator, diplomat, and translator who accompanied the expedition for a year and a half.



SOUTH DAKOTA CLAIMS SACAJAWEA



This marker, erected by the South Dakota Historical Society, near the site of old Fort Manuel, on the Missouri River just below the North Dakota line, claims Sacajawea's remains for South Dakota, on the basis of John Luttig's Journal at Fort Manuel. (Spelled "Sacagawea.")

**POPPYCOCK!,
Rubbish!,
Claptrap!,
Balderdash!,
Blather!**



Where is the spot she was born? Nobody knows!

SACAJAWEA

There are many stories about the young Indian woman who accompanied the Lewis and Clark Expedition.

As time goes on, Sacajawea continues to inspire our admiration and curiosity. People delight in the stories of Sacajawea. These stories continue to be retold in many ways, generations after her passing.

This special memorial area was created in 1932, honoring Sacajawea as an interpreter, guide and counselor to the Lewis and Clark Expedition.

INTERPRETER

At Camp Fortunate, Sacajawea was a vital link between the Expedition and the Shoshone Indians as they traded for horses and learned about the road ahead.

GUIDE & COUNSELOR

In southwestern Montana, Sacajawea pointed out important landmarks for Lewis and Clark. Throughout the Expedition, she shared her knowledge of native plants as food and medicine.

"We know she was a good woman and a fine mother. To us, she represents all that is good about our people, the Lemhi Shoshone."

Bob Arwite,
Fort Lemhi Indian Community,
January 1997



"Sacajawea"
Detail of statue by
Robert Scurry,
1932, Fort Benton, Montana.
Photo courtesy of the
National Park Service.



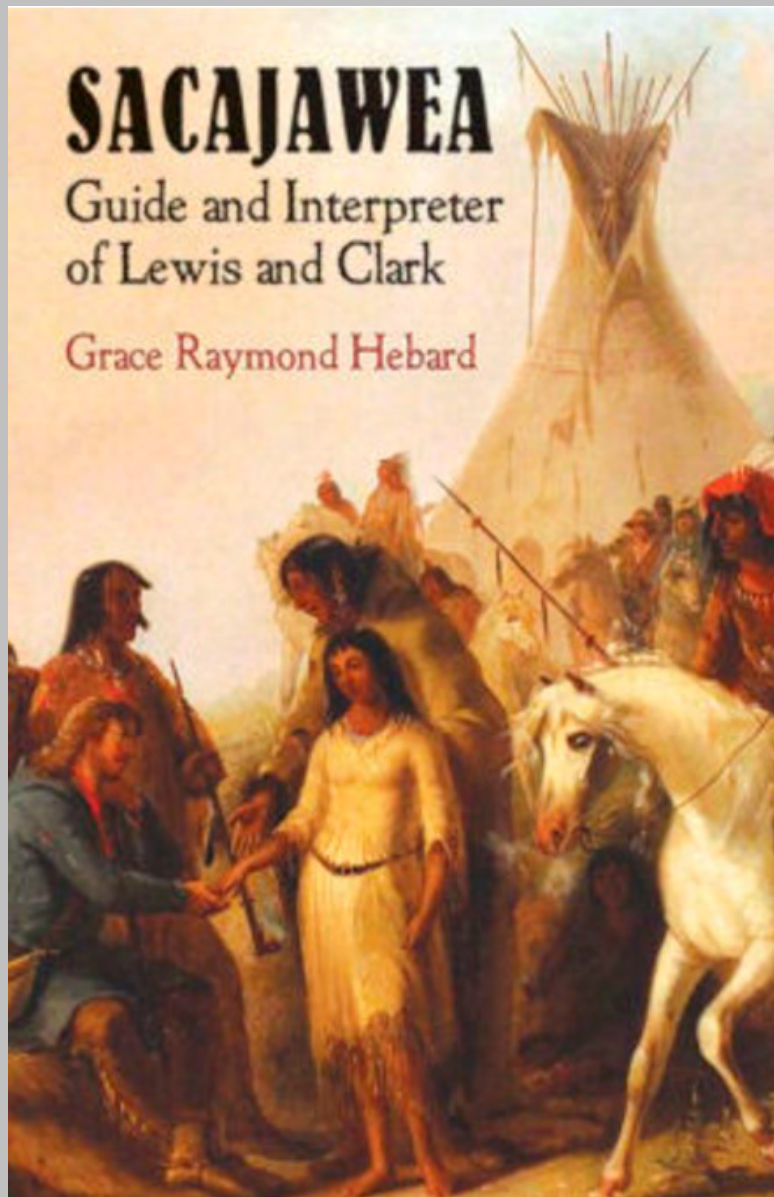
Beaverhead-Deerlodge & Salmon-Challis National Forests

Detail from statue by Robert Scurry,
1932, Fort Benton, Montana.
Photo courtesy of the
National Park Service.

Surprises and Adventures

August 17, 1805 Sacajawea recognizes Cameahwait, leader of the Lemhi Shoshone as her brother. This guarantees cooperation between the Shoshone and the expedition, and results in essential horse trading.

Contrary to popular thought and literature, it was not a happy reunion. Cameahwait gave her dispassionate recognition.



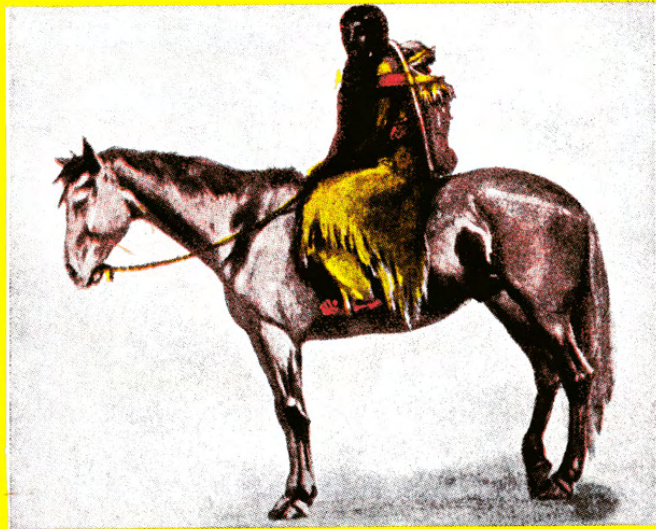
This remarkable study rescues from undeserved obscurity the name and reputation of Sacajawea — a true Native American heroine

1933

[In 1933, Grace Hebard wrote a book of fiction and speculation, mixed with some limited factual information and oral tradition stories. It was an exciting story and a good read, but it should be sparingly used in serious research. It is this book that has produced so many nonfactual statements and conceptions about Sacajawea]

POPPYCOCK!, Rubbish!, Claptrap!, Balderdash!, Blather!

Mystery of
Sacajawea



Indian Girl With Lewis and Clark
AMERICA'S FAVORITE HEROINE



By Harold P. Howard

**Read this book for a good
summary of factual information
about Sacajawea**

Research for the 'True' Trail Location

- George Nicholson, 1866
- Olin D. Wheeler, 1895
- Jack Harlan, 1925
- John Peebles, 1966
- Ralph Space, 1966
- Steve F. Russell, 1985
- Robert Bergantino, 1986
- Martin Plamondon, 2000
- James D. Harlan, 2003
- Ted Hall, 2004
- Gene Eastman, 2005

Locating and Recording the Trails



July at Soldier Meadows

GPS Menagerie

**Trimble 3-Mode
Antenna**

**Laptop
PC**

**Trimble Backpack
Receiver**

**Trimble Ensign
Handheld**

**Power Supplies
and chargers
for 12V and 120V**

**Trimble
Scoutmaster
Handheld**

**Garmin
Etrex Vista
Handheld**

**Garmin 12XL
Handheld**

**Trimble
Data-logger
Computer**

**Garmin DGPS
Mag Antenna**

**Garmin DGPS
E-field Antenna**

**Cables for
connecting
units**



Surveying the Lewis & Clark Trail



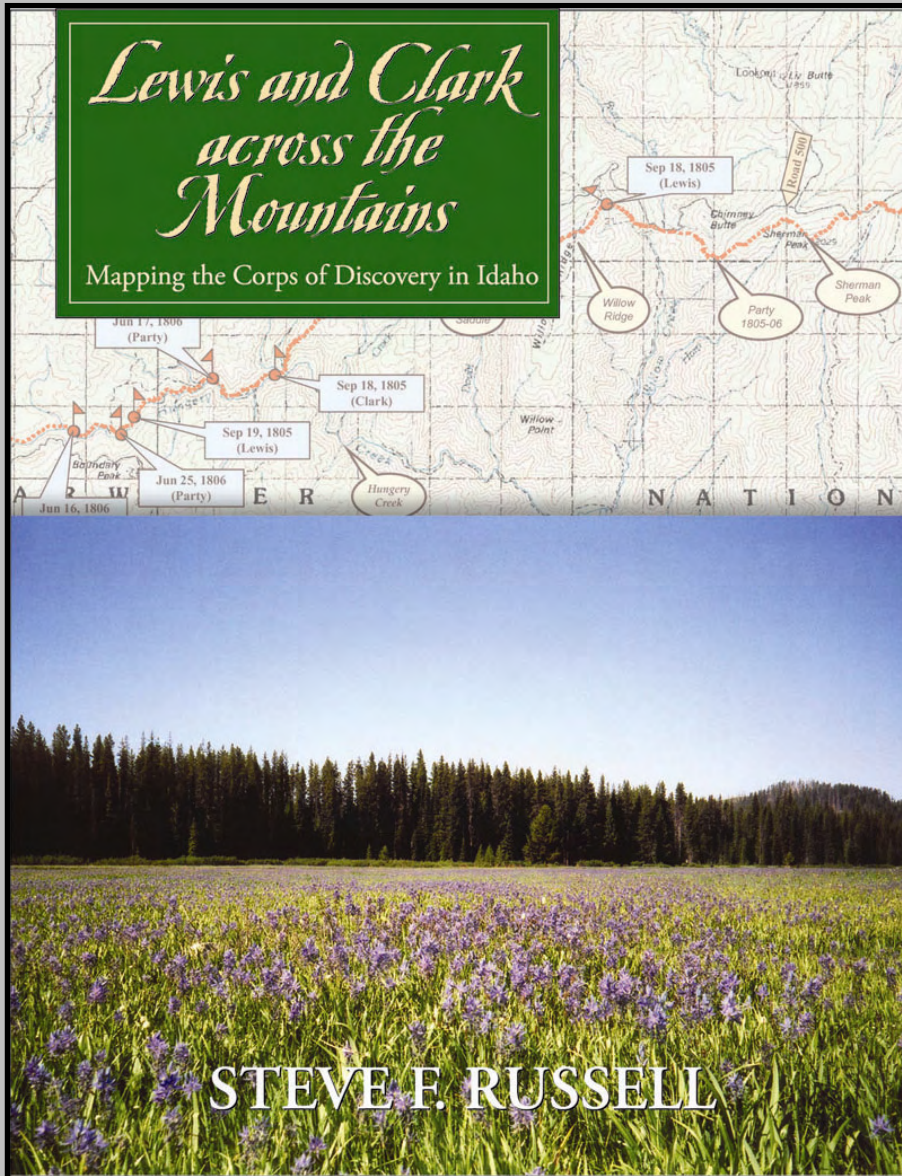
Theo Peterson

Initial Processing of Data

“A different kind of tailgating”



Books



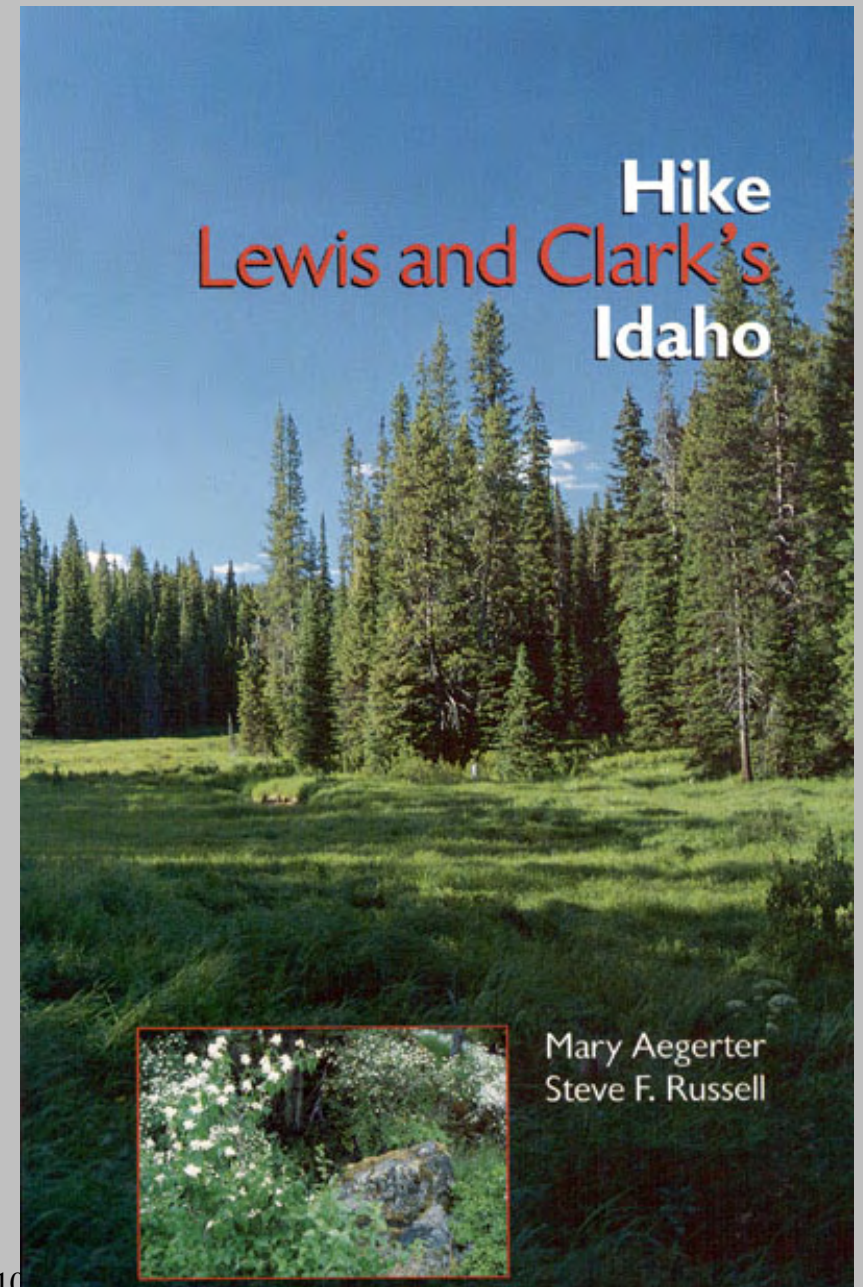
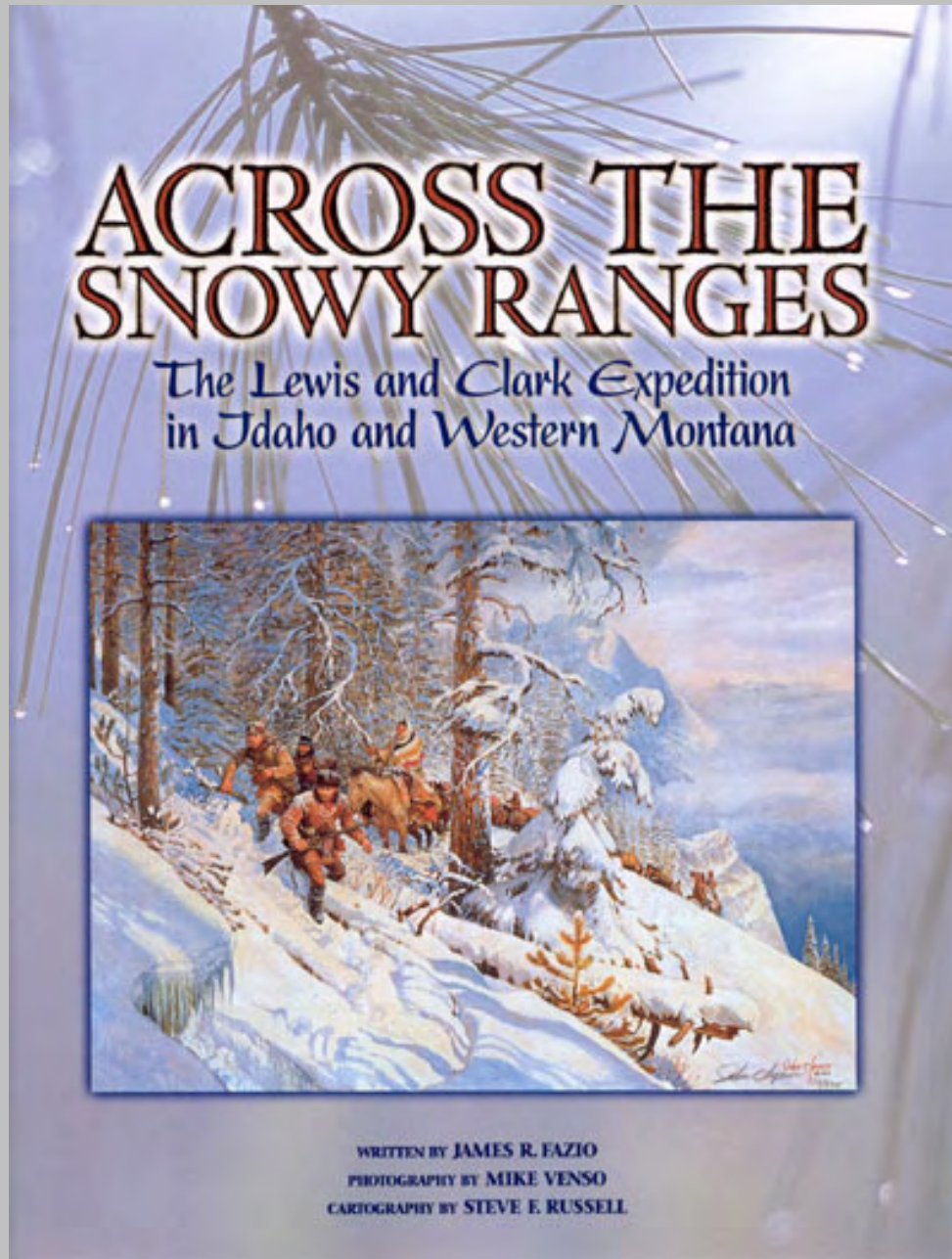
Lewis and Clark Lolo Trail Precision Survey

Summary of Research Results



STEVE F. RUSSELL, PH.D., P.E.
Associate Professor
Iowa State University

Books



Newspapers

SUNDAY
February 27, 2000

GREAT FALLS TRIBUNE

High-tech equipment used to plot Lewis

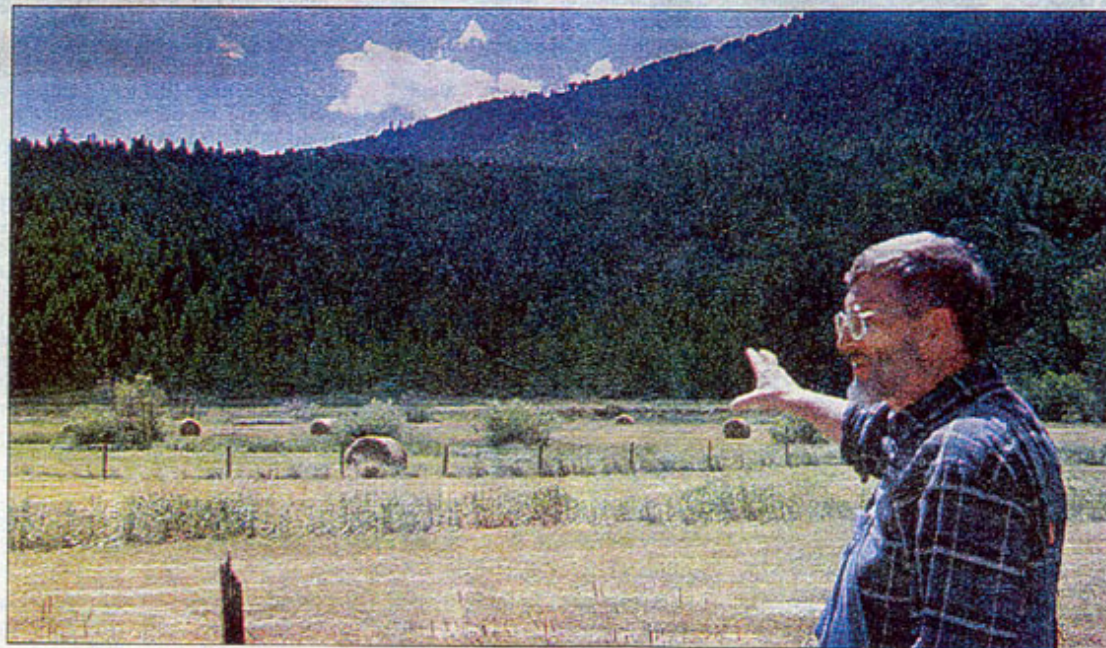
Satellites, journals
aid professor as he
traces historic trail

By DAN GALLAGHER
Associated Press Writer

BOISE, Idaho — For 15 summers, Iowa State University engineering professor Steve Russell has scrambled along the same forest deadfall and rocky hillsides that Meriwether Lewis and William Clark's Corps of Discovery encountered in Idaho's mountains two centuries ago.

But instead of a flintlock rifle and trade beads, Russell carries state-of-the-art mapping equipment to pinpoint within several feet the actual ground the expedition crossed as it went west over the treacherous Bitterroot Mountains in 1805 to reach the Lewiston area and the Nez Perce Tribe who acted as Samaritans to the starved and weary explorers.

"The Lolo Trail spans a land of history, exploration, courage, and danger," Russell said. "It is regrettable that we will never be able to fully learn about its early history but



Iowa State University engineering professor Steve Russell looks at a pasture near Ross' Hole, Mont., in July, where Lewis and Clark met the Salish Tribe before crossing Montana's Bitterroot Mountains.

began. The route is largely untouched from the time it served as

changed so much. The mountain-scene doesn't change," Russell

the North and Middle Forks of the

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END OF SESSION II

Questions?

Surprises and Adventures

Old Toby was not ‘old Toby’

Coulter’s Run, Yellowstone Park

Lewis and the Blackfeet

Toby and his son leaving

Lost on the big hole river recon

At the Weippe Prairie, the men were not starving, they were dying of complications of carbohydrate deficit disorder (Atkins Diet)

Potts cut his leg

In Hungery Creek, a horse rolled down into the creek